

IN THE CLAIMS

1. (currently amended) A data processing apparatus, comprising:

means for extracting a packet necessary for monitoring from each of a plurality of transport streams that correspond to a plurality of concurrent programs, and for reconstructing the extracted packets to one transport stream;

means for descrambling plural packets from the reconstructed one transport stream using a conditional access module and for separating the packets necessary for monitoring; and

means for decoding each packet separated from the reconstructed one transport stream so that more than one of the plurality of concurrent programs is reproduced;

wherein the conditional access module has information needed to descramble the packets from the plurality of transport streams that are in the reconstructed one transport stream, and

the means for extracting extracts packets of SI (Service Information) from each of the plurality of transport streams, reconstructs the extracted packets of SI as new SI packets, and adds the new SI packets to the reconstructed one transport stream.

2. (cancelled)

3. (currently amended) A data processing apparatus according to claim 1, wherein ~~packet information of SI (Service Information) is extracted from each of said plurality of transport streams, the~~ information of the packet of the SI obtained from each of said plurality of transport streams is sent to processing means, and a process for limited reception is executed.

4. (currently amended) A data processing apparatus, comprising:

means for extracting information of a packet of SI (Service Information) from each of a plurality of transport streams that correspond to a plurality of concurrent programs, and for descrambling plural packets using the information of the packet of the SI obtained from each of said plurality of transport streams and a conditional access module;

means for the common descrambling with respect to each of said plurality of transport streams and for separating the packets necessary for monitoring; and

means for decoding each packet separated from each of said transport streams so that more than one of the plurality of concurrent programs is reproduced;

wherein the conditional access module has information needed to descramble the packets from the plurality of transport streams and descrambles the packets using such information and the information of the packet of SI extracted each of the plurality of transport streams that correspond to the plurality of concurrent programs.

5. (previously presented) A data processing apparatus according to claim 4, wherein said means for separating the packets necessary for monitoring is time-divisionally used with respect to said plurality of transport streams.

6. (currently amended) A digital broadcasting receiver, comprising:

means for extracting a packet necessary for monitoring from each of a plurality of transport streams that correspond to a plurality of concurrent programs, and for reconstructing the extracted packets to one transport stream;

means for descrambling plural packets from the reconstructed one transport stream using a conditional access module and for separating the packets necessary for monitoring; and

means for decoding each packet separated from the reconstructed one transport stream so that more than one of the plurality of concurrent programs is reproduced;

wherein the conditional access module has information needed to descramble the packets from the plurality of transport streams that are in the reconstructed one transport stream, and

the means for extracting extracts packets of SI (Service Information) from each of the plurality of transport streams, reconstructs the extracted packets of SI as new SI packets, and adds the new SI packets to the reconstructed one transport stream.

7. (currently amended) A data processing method, comprising:
extracting a packet necessary for monitoring from each of a plurality of transport streams that correspond to a plurality of concurrent programs;~~7~~ and

reconstructing the extracted packets to one transport stream;

descrambling plural packets from said reconstructed one transport stream using a conditional access module and separating the packets necessary for monitoring; and

decoding each packet separated from said reconstructed one transport stream so that more than one of the plurality of concurrent programs is reproduced;

wherein the conditional access module has information needed to descramble the packets from the plurality of

transport streams that are in the reconstructed one transport stream,

the extracting step includes extracting packets of SI (Service Information) from each of the plurality of transport streams, and

the reconstructing includes:

reconstructing the extracted packets of SI as new SI packets, and

adding the new SI packets to the reconstructed one transport stream.

8. (cancelled)

9. (currently amended) A data processing method according to claim 7, wherein ~~packet information of SI (Service Information) is extracted from each of said plurality of transport streams,~~ the information of the packet of the SI obtained from each of said plurality of transport streams is sent to processing means, and a process for limited reception is executed.

10. (currently amended) A data processing method, comprising:
extracting packet information of SI (Service Information) from each of a plurality of transport streams that correspond to a plurality of concurrent programs, and descrambling plural packets using the information of the packet of the SI obtained from each of said plurality of transport streams and a conditional access module;

descrambling with respect to each of said plurality of transport streams and separating the packets necessary for monitoring; and

decoding each packet separated from each of said transport streams, respectively, so that more than one of the plurality of concurrent programs is reproduced;

wherein the conditional access module has information needed to descramble the packets from the plurality of transport streams and descrambles the packets using such information and the information of the packet of SI extracted each of the plurality of transport streams that correspond to the plurality of concurrent programs.

11. (previously presented) A data processing method according to claim 10, wherein said means for separating the packets necessary for monitoring is time-divisionally used with respect to said plurality of transport streams.

12. (new) A data processing apparatus according to claim 4, wherein the information of the packet of the SI obtained from each of said plurality of transport streams is sent to processing means, and a process for limited reception is executed.

13. (new) A data processing method according to claim 10, wherein the information of the packet of the SI obtained from each of said plurality of transport streams is sent to processing means, and a process for limited reception is executed.